

EXHIBIT A

**CITY OF PORTLAND
AGREEMENT FOR PROFESSIONAL, TECHNICAL, OR EXPERT SERVICES**

CONTRACT NUMBER 30005613

**TITLE OF WORK PROJECT
CONDUIT INTERNAL INSPECTION, CONDITION ASSESSMENT SERVICES**

This contract is between the City of Portland ("City," or "Bureau") and Pure Technologies U.S. Inc., hereafter called Consultant. The City's Project Manager for this contract is Vill G. Villanueva.

Effective Date and Duration

This contract shall become effective on February 1, 2017. This contract shall expire, unless otherwise terminated or extended, on June 30, 2020.

Consideration

- (a) City agrees to pay Consultant a sum not to exceed \$3,610,710 for accomplishment of the work.
- (b) Interim payments shall be made to Consultant according to the schedule identified in the STATEMENT OF THE WORK AND PAYMENT SCHEDULE.

CONSULTANT DATA AND CERTIFICATION

Name (print full legal name): Pure Technologies U.S. Inc.

Address: 600 West Broadway, Suite 500; San Diego, CA 92101

Employer Identification Number (EIN): 86-0853190

[INDEPENDENT CONSULTANTS: DO NOT PROVIDE SOCIAL SECURITY NUMBER (SSN) – LEAVE BLANK IF NO EIN]

City of Portland Business Tax Registration Number: 737545

Citizenship: Nonresident alien ☐ Yes ☒ No

Business Designation (check one): ☐ Individual ☐ Sole Proprietorship ☐ Partnership ☒ Corporation

☐ Limited Liability Co (LLC) ☐ Estate/Trust ☐ Public Service Corp. ☐ Government/Nonprofit

Payment information will be reported to the IRS under the name and taxpayer I.D. number provided above. Information must be provided prior to contract approval.

TERMS AND CONDITIONS

1. Standard of Care

Consultant shall perform all services under this contract using that care, skill, and diligence that would ordinarily be used by similar professionals in this community in similar circumstances.

2. Effect of Expiration

Passage of the contract expiration date shall not extinguish, prejudice, or limit either party's right to enforce this Contract with respect to any default or defect in performance that has not been corrected.

3. Order of Precedence

This contract consists of these Terms and Conditions, the Statement of Work and Payment Schedule, and any exhibits that are attached. Any apparent or alleged conflict between these items will be resolved by using the following order of precedence:

- a) these Terms and Conditions; b) Statement of Work and Payment Schedule; and c) any exhibits attached to the contract.

4. Early Termination of Contract

- (a) The City may terminate this Contract for convenience at any time for any reason deemed appropriate in its sole discretion. Termination is effective immediately upon notice of termination given by the City.
- (b) Either party may terminate this Contract in the event of a material breach by the other party that is not cured. Before termination is permitted, the party seeking termination shall give the other party written notice of the breach, its intent to terminate, and fifteen (15) calendar days to cure the breach. If the breach is not cured within 15 days, the party seeking termination may terminate immediately by giving written notice that the Contract is terminated.

5. Remedies and Payment on Early Termination

- (a) If the City terminates pursuant to 4(a) above, the City shall pay the Consultant for work performed in accordance with the Contract prior to the termination date. No other costs or loss of anticipated profits shall be paid.
- (b) If the City terminates pursuant to 4(b) above, the City is entitled all remedies available at law or equity. In addition, Consultant shall pay the City all damages, costs, and sums incurred by the City as a result of the breach.
- (c) If the Consultant justifiably terminates the contract pursuant to subsection 4(b), the Consultant's only remedy is payment for work prior to the termination. No other costs or loss of anticipated profits shall be paid.
- (d) If the City's termination under Section 4(b) was wrongful, the termination shall be automatically converted to one for convenience and the Consultant shall be paid as if the Contract was terminated under Section 4(a).
- (e) In the event of early termination the Consultant's work product before the date of termination becomes property of the City.

6. Assignment

Consultant shall not subcontract, assign, or transfer any of the work scheduled under this agreement, without the prior written consent of the City. Notwithstanding City approval of a subconsultant, the Consultant shall remain obligated for full performance hereunder, and the City shall incur no obligation other than its obligations to the Consultant hereunder. The Consultant agrees that if subconsultants are employed in the performance of this Agreement, the Consultant and its subconsultants are subject to the requirements and sanctions of ORS Chapter 656, Workers' Compensation.

7. Compliance with Applicable Law

Consultant shall comply with all applicable federal, state, and local laws and regulations. Consultant agrees it currently is in compliance with all tax laws. Consultant shall comply with Title VI of the Civil Rights Act of 1964 and its corresponding regulations. In connection with its activities under this Contract, the Consultant shall comply with all applicable Grant Terms and conditions. This includes all terms and conditions contained in this contract and, for a contract involving a grant, the Grant Terms and Conditions.

8. Indemnification for Property Damage and Personal Injury

Consultant shall indemnify, defend, and hold harmless the City, its officers, agents, and employees, from all claims, losses, damages, and costs (including reasonable attorney fees) for personal injury and property damage arising out of the intentional or negligent acts or omissions of the Consultant, its Subconsultants, suppliers, employees or agents in the performance of its services. Nothing in this paragraph requires the Consultant or its insurer to indemnify the City for claims of personal injury or property damage caused by the negligence of the City. This duty shall survive the expiration or termination of this contract.

9. Insurance

Consultant shall obtain and maintain in full force at Consultant expense, throughout the duration of the Contract and any warranty or extension periods, the required insurance identified below. The City reserves the right to require additional insurance coverage as required by statutory or legal changes to the maximum liability that may be imposed on Oregon cities during the term of the Contract.

- (a) Workers' compensation insurance as required by ORS Chapter 656 and as it may be amended. Unless exempt under ORS Chapter 656, the Consultant and all subconsultants shall maintain coverage for all subject workers.

☒ Required and attached // ☐ Proof of exemption (i.e., completion of Workers' Compensation Insurance Statement)

- (b) General commercial liability (CGL) insurance covering bodily injury, personal injury, property damage, including coverage for independent consultant's protection (required if any work will be subcontracted), premises/operations, contractual liability, products and completed operations, in per occurrence limit of not less than \$1,000,000, and aggregate limit of not less than \$2,000,000.

☒ Required and attached // ☐ Waived by Bureau Director or designee // ☐ Reduce by Bureau Director or designee

- (c) Automobile liability insurance with coverage of not less than \$1,000,000 each accident, and an umbrella or excess liability coverage of \$2,000,000. The insurance shall include coverage for any auto or all owned, scheduled, hired and non-owned auto. This coverage may be combined with the commercial general liability insurance policy.

☒ Required and attached // ☐ Waived by Bureau Director or designee // ☐ Reduce by Bureau Director or designee

- (d) Professional Liability and/or Errors & Omissions insurance to cover damages caused by negligent acts, errors or omissions related to the professional services, and performance of duties and responsibilities of the Consultant under this contract in an amount with a combined single limit of not less than \$1,000,000 per occurrence and aggregate of \$3,000,000 for all claims per occurrence. In lieu of an occurrence based policy, Consultant may have claims-made policy in an amount not less than \$1,000,000 per claim and \$3,000,000 annual aggregate, if the Consultant obtains an extended reporting period or tail coverage for not less than three (3) years following the termination or expiration of the Contract.

☒ Required and attached // ☐ Waived by Bureau Director or designee // ☐ Reduce by Bureau Director or designee

Continuous Coverage; Notice of Cancellation: The Consultant agrees to maintain continuous, uninterrupted coverage for the duration of the Contract. There shall be no termination, cancellation, material change, potential exhaustion of aggregate limits or

non-renewal of coverage without thirty (30) days written notice from Consultant to the City. If the insurance is canceled or terminated prior to completion of the Contract, Consultant shall immediately notify the City and provide a new policy with the same terms. Any failure to comply with this clause shall constitute a material breach of Contract and shall be grounds for immediate termination of this Contract.

Additional Insured: The liability insurance coverages, except Professional Liability, Errors and Omissions, or Workers' Compensation, shall be without prejudice to coverage otherwise existing, and shall name the City of Portland and its bureaus/divisions, officers, agents and employees as Additional Insureds, with respect to the Consultant's activities to be performed, or products or services to be provided. Coverage shall be primary and non-contributory with any other insurance and self-insurance. Notwithstanding the naming of additional insureds, the insurance shall protect each additional insured in the same manner as though a separate policy had been issued to each, but nothing herein shall operate to increase the insurer's liability as set forth elsewhere in the policy beyond the amount or amounts for which the insurer would have been liable if only one person or interest had been named as insured.

Certificate(s) of Insurance: Consultant shall provide proof of insurance through acceptable certificate(s) of insurance, including additional insured endorsement form(s) and all other relevant endorsements, to the City prior to the award of the Contract if required by the procurement documents (e.g., request for proposal), or at execution of Contract and prior to any commencement of work or delivery of goods or services under the Contract. The Certificate(s) will specify all of the parties who are endorsed on the policy as Additional Insureds (or Loss Payees). Insurance coverages required under this Contract shall be obtained from insurance companies acceptable to the City of Portland. The Consultant shall pay for all deductibles and premium. The City reserves the right to require, at any time, complete, certified copies of required insurance policies, including endorsements evidencing the coverage the required.

Subconsultant(s): Consultant shall provide evidence that any subconsultant, if any, performing work or providing goods or service under the Contract has the same types and amounts of coverages as required herein or that the subconsultant is included under Consultant's policy.

10. Ownership of Work Product

All work product produced by the Consultant under this contract is the exclusive property of the City. "Work Product" includes, but is not limited to: research, reports, computer programs, manuals, drawings, recordings, photographs, artwork and any data or information in any form. The Consultant and the City intend that such Work Product shall be deemed "work made for hire" of which the City shall be deemed the author. If for any reason a Work Product is deemed not to be a "work made for hire," the Consultant hereby irrevocably assigns and transfers to the City all right, title and interest in such work product, whether arising from copyright, patent, trademark, trade secret, or any other state or federal intellectual property law or doctrines. Consultant shall obtain such interests and execute all documents necessary to fully vest such rights in the City. Consultant waives all rights relating to work product, including any rights arising under 17 USC 106A, or any other rights of authorship, identification or approval, restriction or limitation on use or subsequent modifications. If the Consultant is an architect, the Work Product is the property of the Consultant-Architect, and by execution of this contract, the Consultant-Architect grants the City an exclusive and irrevocable license to use that Work Product.

Notwithstanding the above, all pre-existing trademarks, services marks, patents, copyrights, trade secrets, and other proprietary rights of Consultant are and will remain the exclusive property of Consultant.

11. EEO Certification

In the event Consultant provides in excess of \$2,500.00 for services to the City in any fiscal year, Consultant shall obtain EEO certification from the City.

12. Equal Benefits

Consultant must comply with the City's Equal Benefits program as prescribed by Chapter 3.100 of the Code of the City of Portland. The required documentation must be filed with Procurement Services, City of Portland, prior to contract execution.

13. Successors in Interest

The provisions of this contract shall be binding upon and shall inure to the benefit of the parties hereto, and their respective successors and approved assigns.

14. Severability

The parties agree that if any term or provision of this contract is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the contract did not contain the particular term or provision held to be invalid.

15. Waiver

The failure of the City to enforce any provision of this contract shall not constitute a waiver by the City of that or any other provision.

16. Errors

The Consultant shall promptly perform such additional services as may be necessary to correct errors in the services required by this contract without undue delays and without additional cost.

17. Governing Law/Venue

The provisions of this contract shall be interpreted, construed and enforced in accordance with, and governed by, the laws of the State of Oregon without reference to its conflict of laws provisions that might otherwise require the application of the law of any other jurisdiction. Any action or suits involving any question arising under this contract must be brought in the appropriate court in Multnomah County Oregon.

18. Amendments

All changes to this contract, including changes to the scope of work and contract amount, must be made by written amendment and approved by the Chief Procurement Officer to be valid. Any amendment that increases the original contract amount by more than 25% must be approved by the City Council to be valid.

19. Business Tax Registration

The Consultant shall obtain a City of Portland business tax registration number as required by PCC 7.02 prior to beginning work under this Contract.

20. Prohibited Conduct

The Consultant shall not hire any City employee who evaluated the proposals or authorized the award of this Contract for two years after the date the contract was authorized without the express written permission of the City and provided the hiring is permitted by state law.

21. Payment to Vendors and Subconsultants

The Consultant shall timely pay all subconsultants and suppliers providing services or goods for this Contract.

22. Access to Records

The Consultant shall maintain all records relating to this Contract for three (3) years after final payment. The City may examine, audit and copy the Consultant's books, documents, papers, and records relating to this contract at any time during this period upon reasonable notice. Copies of these records shall be made available upon request. Payment for the reasonable cost of requested copies shall be made by the City.

23. Audits

- (a) The City may conduct financial and performance audits of the billings and services specified in this agreement at any time in the course of the agreement and during the three (3) year period established by paragraph 22. Audits will be conducted in accordance with generally accepted auditing standards as promulgated in Government Auditing Standards by the Comptroller General of the United States Government Accountability Office.
- (b) If an audit discloses that payments to the Consultant exceed the amount to which the Consultant was entitled, the Consultant shall repay the amount of the excess to the City.

24. Electronic Signatures

The City and Consultant may conduct this transaction, including any contract amendments, by electronic means, including the use of electronic signatures.

25. Merger Clause

This Contract encompasses the entire agreement of the parties, and supersedes all previous understandings and agreements between the parties, whether verbal or written.

26. Dispute Resolution/Work Regardless of Disputes

The parties shall participate in mediation to resolve disputes before conducting litigation. The mediation shall occur at a reasonable time after the conclusion of the Contract with a mediator jointly selected by the parties. Notwithstanding any dispute under this Contract, the Consultant shall continue to perform its work pending resolution of a dispute, and the City shall make payments as required by the Contract for undisputed portions of the work. In the event of litigation, no attorney fees are recoverable. No different dispute resolution paragraph(s) in this contract or any attachment hereto shall supersede or take precedence over this provision.

27. Progress Reports: ☒ Applicable ☐ Not Applicable

If applicable, the Consultant shall provide monthly progress reports to the Project Manager as described in the Statement of the Work and Payment Schedule.

28. Consultant's Personnel: ☒ Applicable ☐ Not Applicable

If applicable, the Consultant shall assign the personnel listed in the Statement of the Work and Payment Schedule for the work required by the Contract and shall not change personnel without the prior written consent of the City, which shall not be unreasonably withheld.

29. Subconsultants

The Consultant shall use the subconsultants identified in its proposals. The Consultant shall not change subconsultant assignments without the prior written consent of the Chief Procurement Officer. The City will enforce all social equity contracting and Minority, Women and Emerging Small Business (M/W/ESB) subcontracting commitments submitted by the Consultant in its proposals. Failure to use the identified M/W/ESB subconsultants without prior written consent is a material breach of contract.

For contracts valued \$50,000 or more, the Consultant shall submit a Monthly Subconsultant Payment and Utilization Report (MUR), made part of this contract by reference, reporting ALL subconsultants employed in the performance of this agreement. An electronic copy of the MUR may be obtained by contacting the PTE Contract Compliance Specialist.

30. Third Party Beneficiaries

There are no third party beneficiaries to this contract. Enforcement of this contract is reserved to the parties.

31. Conflict of Interest

Consultant hereby certifies that, if applicable, its contract proposal is made in good faith without fraud, collusion or connection of any kind with any other proposer of the same request for proposals or other City procurement solicitation(s), that the Consultant as a proposer has competed solely on its own behalf without connection or obligation to, any undisclosed person or firm. Consultant certifies that it is not a City official/employee or a business with which a City official/employee is associated, and that to the best of its knowledge, Consultant, its employee(s), its officer(s) or its director(s) is not a City official/employee or a relative of any City official/employee who: i) has responsibility in making decisions or ability to influence decision-making on the contract or project to which this contract pertains; ii) has or will participate in evaluation or management of the contract; or iii) has or will have financial benefits in the contract. Consultant understands that should it elect to employ any former City official/employee during the term of the contract then that the former City official/Consultant employee must comply with applicable government ethics and conflicts of interest provisions in ORS Chapter 244, including but not limited to ORS 244.040(5) and ORS 244.047, and the City's Charter, Codes and administrative rules, including lobbying prohibitions under Portland City Code Section 2.12.080.

32. Respectful Workplace Behavior

The City of Portland is committed to a respectful work environment, free of harassment, discrimination and retaliation and other inappropriate conduct. Every individual has a right to work in a professional atmosphere where all individuals are treated with respect and dignity. The City's HR Rule 2.02 covers all employees with the City of Portland as well as consultants, vendors or consultants who provide services to the City of Portland. By signing this Contract/Agreement, the Consultant indicates compliance with all terms and conditions contained in this Contract including HR 2.02.

STATEMENT OF THE WORK AND PAYMENT SCHEDULE

INTRODUCTION

The City of Portland Water Bureau (PWB) requires the internal inspection and condition assessment of three (3) water transmission pipelines namely: **Conduit 2, Conduit 3 and Conduit 4 (Conduits)**. These Conduits transport water from the PWB Headworks facility in the Bull Run watershed to in-town reservoirs that supply water to the Portland metropolitan area.

The purpose of the Conduit Internal Inspection, Condition Assessment and Rescue Services Project (**Project**) is to gain a better understanding of the existing condition of PWB's three (3) Conduits by using the latest internal pipe (worker entry) visual inspection methods, and by applying non-destructive pipe wall thickness examination technologies. The Project will not only gather condition assessment information on the conduits but will also provide remaining service life analyses and options for corrective actions. The Project supports PWB's mission statement of providing reliable, high quality water service to customers as well as being responsible stewards of the public's water infrastructure and natural resources.

The internal visual inspections and non-destructive condition assessments will be performed in selected sections of each of the three (3) Conduits that were determined to have high likelihood and/or high consequence of failure. PWB will identify the sections of Conduit to be inspected beginning with **Phase I for Conduit 3, then Phase II for Conduit 2, then Phase III for Conduit 4**.

PWB's Operations Group is responsible for the operation and maintenance of the three conduits and has allowed only one conduit to be taken off-line between October 1st and April 30th, during the low demand season of the year. All pipe inspection activities will be stopped by April 15th to allow for the filling, disinfection and flushing of the conduits before being returned to full operation.

SCOPE OF WORK

Pure Technologies U.S. Inc. (Consultant) shall be performing the following tasks to implement each of the three phases of Project as outlined below. Consultant understands that due to the short duration between the issuance date for Phase I Notice to Proceed and April 15, 2017, the amount of in-pipe inspections and assessment work to be accomplished shall be adjusted to fit the available time. PWB plans to complete inspection of the remaining sections of Phase I early in the Fall of 2017, to be followed by Phase II work thereafter. Phase I serves as a test case for the scope of work to be done in the remaining two phases of this work. PWB will review the Final Technical Reports and then decide whether to move forward with Phases II and/or Phase III. **Consultant shall not begin Phase I of this Contract until the City Project Manager provides a Notice to Proceed, which must be approved by the Principal Engineer in Charge of the PWB Engineering Services Group (ESG), Planning Section.**

Each Phase of the Project shall utilize the same Tasks provided below and use the applicable Schedule of Values for that particular Phase of the Project. The Consultant anticipates the amount of effort on Tasks 1.0 Project Management, 2.0 Inspection Planning, and 4.0 Analysis and Reporting shall be reduced to approximately 60% of that in Phase I. The scope of work and the inspection methods to be used in Phase II and Phase III shall be determined after Phase I, Inspection has been completed and all work has been accepted and approved by the City. Those deliverables may be addressed through use of the Work Order process which is addressed in detail below.

Task 1 – Project Management

- 1) Kickoff Meeting – The City Project Manager (PM) will schedule a kickoff meeting to be attended by the Consultant Project Manager and Project Director, together with the PWB Project Team via on-line teleconference meeting to inaugurate the official start of the Project. The Consultant Project Manager shall discuss the overall Project Management Plan, define the roles and responsibilities of staff, establish the Project schedule and identify action items, milestones, key deliverables and deadlines. The kickoff meeting date shall be no sooner than the date on the Notice to Proceed.
- 2) Project Management Plan - Consultant shall provide an overall Project Management Plan to include, at a minimum, the following:
 - a. A work plan that details the team approach to the Project, including specific tasks, products and equipment to be used, schedule, deliverables, costs by task and discipline, and an explanation of how the teams will interact.
 - b. A Project Quality Assurance / Quality Control (QA/QC) plan to ascertain that the deliverables are at their respective conformance levels for submittal.
 - c. A Safety Plan that includes site safety and personnel protocols in accordance with OSHA standards and in accordance with City policies and procedures.
- 3) Progress review meetings – The City PM will schedule weekly progress meetings to discuss the following:
 - a. Status of the responses to the action items discussed at the prior meeting.
 - b. Report on the current activities and highlight of what tasks are going on as planned and tasks that are having issues.
 - c. Discuss outline of how to resolve current issues, identify the parties responsible for resolving the issues, and the target completion date.
 - d. Discuss monthly Progress Reports, identify potential issues and plans to address issues moving forward.
 - e. Update on contract scope, billings and payments.
 - f. Other items.
- 4) Workshops – Consultant shall hold two (2) workshops to discuss the technical details of the Conduit internal inspections, condition assessments, and safety and rescue plans with the PWB pipe inspectors, Consultant's field personnel, Safety Consultants, and PWB Safety Officer prior to the start of the pipe inspections and condition assessments. The details of the workshops are discussed in Task 2 below.
- 5) Project administration and billings – Consultant shall administer and manage the Project to ensure that all tasks and subtasks the Consultant and their subconsultants are responsible for are properly executed according to sound Project Management Principles, and to complete the scope of work and deliverables according to the approved schedule and budget.
 - a. Progress Reports - Consultant shall provide City PM with monthly summary reports highlighting work progress during the previous month and listing unresolved outstanding issues. One (1) electronic copy of each monthly report shall be submitted to City's PM by the 15th of the next month. Progress reports shall be broken down by task as outlined in "Exhibit A – Schedule of Values" and related sections of this Contract, and will compare percentages complete with percentages of budget spent.
 - b. Consultant shall submit a monthly sub-consultant Payment and Utilization Report by the 15th of each month as described further below.
 - c. Consultant shall submit invoices per the instructions and requirements included to the Contract below.

Task 2 – Project Planning

- 1) Data Management Planning – Consultant shall develop the Data Management Plan for the Project. This is to include, at a minimum, a detailed description of the following:
 - a. Provide options pertaining to visual inspection and data collection methodologies, with an emphasis on where/how often metal thickness and other data and measurements are collected.
 - b. Provide options pertaining to electronic inspection and data collection equipment with an emphasis on which pipe wall thickness measurement tools, or similar equipment, are capable of producing the wall thickness data necessary to estimate the remaining service life of the sections inspected. It is important and required that the data created during the inspections shall integrate with existing PWB systems and platforms. The digital format must be transferable with ArcGIS, Microsoft Excel, and/or Microsoft Access format.
 - c. Provide the framework, methodology, electronic files and software (if necessary) for data integration into PWB's GIS.

- d. Describe how to maximize PWB GIS and mapping technologies, with an emphasis on accurately capturing spatial inspection data and translating collected data to PWB GIS and Excel or Access databases.
- e. Describe the data collection methodologies proposed and how to analyze the inspection data in order to estimate the remaining service life of the sections inspected based on those methodologies.
- f. Describe how the inspection data will be used in selecting rehabilitation (such as lining) or replacement options based on the analyses.
- g. Development of a matrix that defines the types of pipe defects and characteristics to be assessed, and standard jargon to be used.
- h. Define methodologies, techniques and tools for quantifying and characterizing defects for consistent efforts and results;
- i. Provide standard criteria and procedures for photographing and video recording of defects.
- j. Recommend mobile data collection devices, data transfer and storage procedures, and data accessibility options for analysis;
- k. Provide a secure platform for transferring data from the field to the Consultant's office for processing and for transmitting the information to PWB;
- l. Establish a data quality control protocol and provide quality assurance and quality control of pipe visual inspection and condition assessment data prior to storage in PWB's data servers; and,
- m. Consultant shall hold a workshop to train PWB stakeholders on the aspects of the Data Management Plan.

2) Inspection Planning

- a. Consultant shall review and revise the draft Inspection Plan prepared by PWB specific for each conduit. Consultant shall finalize and electronically distribute the final version of the Inspection Plan before the workshop. Consultant shall provide City Project Manager with a conformed version of the Final Inspection Plan that incorporates knowledge gained from the pipe inspections and condition assessments prior to the beginning of the next phase of this Project.
- b. Consultant shall review the conduit sections that are proposed to be visually inspected and assessed for remaining pipe thickness. Consultant and PWB will discuss and finalize the scope of work for both visual inspection and pipe thickness measurements.
- c. Consultant shall recommend and provide the types of equipment to be used for data collection and develop the data collection procedure and schedule for the inspection plan in collaboration with PWB. Depending on the scenario, the schedule for Phase I may require overlapping work / tasks normally conducted in series to be conducted in parallel or out of sequence.
- d. PWB will identify entry and exit points for both the visual inspection team, and the pipe thickness measurements team. Consultant shall confirm the access requirements for the specific equipment and other special considerations to assure successful deployments.
- e. Consultant shall review and recommend the sequence of work for the visual inspection team, the pipe thickness measurement team, debris clean-up team, and other related tasks to be done inside the pipe.
- f. Consultant and PWB shall develop a plan for control of work site and equipment. PWB is responsible for excavating, opening, maintaining and closing existing access manholes to be used for the visual inspection and for various pipe wall thickness inspection methods. PWB is responsible for the erosion control, public notification, traffic control permitting and other permit requirements for working in the public right-of-way, and for access requirements by private property owners on manholes in easements within private properties. PWB will secure worksite with trench shoring, traffic cones, barricades and steel plates as needed. Consultant shall be responsible for protecting their equipment and accessories from unforeseen events such as vandalism, and the likes. In addition, obtain appropriate insurances required to ensure protection or from any loss.
- g. Consultant shall provide traffic control and flaggers in work sites that are in traffic areas. This includes requiring and providing all protective gear, safety plans or other safety requirements to ensure work site is safe.
- h. Consultant and PWB will host a workshop to discuss the details of the Inspection Plan. This shall require the Consultant to train PWB staff on the visual inspection procedure, which is to include at a minimum the use of standard notes to describe ovality, condition of lining, pipe wall defects, tagging and taking photographs and videos.

3) Confined Space Entry, Rope Support, and Rescue Planning

- a. Consultant shall review and revise the draft Confined Space Entry, Rope Support and Rescue Plan prepared by PWB specific for each Conduit. Consultant shall publish the final version of the Confined Space Entry, Rope Support and Rescue Plan before the workshops. Work product is owned by the City. The final version is to include, at a minimum, the following:
 - a. Confined space access, permits, limitations, and rescue requirements.
 - b. Conduit shutdown plan and needs based recommendations.
 - c. Safety protocols, accounting for 18"x12" pipeline entry portals and sections with steep slopes.
 - d. Communication protocols, including methods of communication between access points, within the Conduits, and with emergency resources.
 - e. Ventilation and power supply requirements.
 - f. Equipment required, including, but not limited to, emergency retrieval equipment and first aid.

- g. Procedure for setting up, deploying and operating the rope and pulley system for the equipment and personnel working inside the pipe.
- h. A rescue and emergency response plan.
- i. Conduit segments provided by PWB's Project Manager to be inspected.
- b. Consultant shall publish a conformed version that incorporates knowledge gained from the pipe inspections and condition assessments prior to the beginning of the next phase and provide a Word format version as directed to the PWB.
- c. Consultant and PWB will conduct a Job Hazard Analysis (JHA) for the teams that will perform pipe visual inspection and the pipe thickness measurements. The JHA is to include a risk assessment and risk mitigation measures.
- d. Consultant shall conduct a workshop for the teams that will perform in-pipe visual inspection and the pipe thickness measurements. The workshop shall specifically address the safety issues that were identified in the Confined Space, Rope Support and Rescue Plan and Job Hazard Analysis. This workshop is intended to provide PWB staff with confined space and rescue of incapacitated personnel training prior to conducting the pipe inspections.

Task 3 – Field Inspection

- 1) Inspection – Consultant shall provide the complete suite of equipment and tooling, including the operators, to deploy the pipe wall thickness measuring device for the designated sections of the conduit once a decision has been made jointly by PWB and the Consultant. PWB will provide the staff to perform the visual inspections.
 - A) Continuous In-line tools:
 - a. Consultant shall deploy Enhanced Electromagnetic high resolution inspection (continuous in-line assessment) device that can detect areas of corrosion as small as 3-inch by 3-inch and 30% loss of wall thickness, locating detections axially and circumferentially along the pipeline.
 1. Consultant shall assemble the device inside the pipe using the existing access opening, and operate the device through the pipeline ensuring the data collection is in accordance with the data QA/QC parameters established in the Data Management Plan.
 2. Consultant shall assemble the free-swimming device outside of the pipe, insert the tool through appropriate access, track the tool throughout the duration of the inspection, capture and extract the tool from an agreed upon access point. A temporary isolation for insertion and extraction is required, and the pipeline must be fully operational during the inspection allowing it to inspect long stretches of pipe in a single deployment.
 - b. Consultant shall deploy Magnetic Flux Leakage assessment device in the pipeline capable of producing ultrahigh resolution inspection of large diameter pipeline. This device is capable of detecting 10% wall loss on 0.25 -inch thickness between 54-inch and 102-inch diameter.
 1. Ovality measurements – Consultant shall inform PWB staff where to perform ovality measurements prior to the use of an MFL tool in any of the conduits.
 - c. Consultant shall deploy SmartBall leak detection device to detect the presence of leaks and air pockets in the pipeline.
 - d. Prior to deployment of any continuous in-line tool, PWB and the Consultant will collaborate and decide jointly on locations to calibrate the equipment. Should calibrations require repairs to a conduit, PWB will direct the Consultant on the method of repair and provide the final inspection and approval of all repairs made. Any repair work will require specifications that will be provided by the City's Project Manager per each Task or work assignment.
 - B) Hand-held tools:
 - a. Consultant shall deploy RTD-Incotest pulsed eddy current testing for detailed investigation of the pipe wall at locations and intervals informed by the EM, MFL, and or SmartBall inspections, and specified in the Inspection Plan.
 - b. Consultant shall deploy Phased Array UT testing for detailed investigation of the pipe wall at locations and intervals informed by the EM, MFL, and or SmartBall inspections, and specified in the Inspection Plan. Pipe cement mortar lining must be removed and the pipe wall thoroughly prepared to assure good sensor contact against the pipe wall. Removal of the cement mortar lining and pipe wall preparations will be performed by PWB.
 - c. Ultrasonic Thickness Gauge Measurements – Consultant shall inform PWB staff where to perform Ultrasonic Thickness (UT) testing for detailed investigation of the pipe wall, if necessary. Pipe cement mortar lining must be removed and the pipe wall thoroughly prepared to assure good sensor contact against the pipe wall. Removal of the cement mortar lining and pipe wall preparations will be performed by PWB.
 - C) Visual Inspection – PWB will provide the labor and materials to collect, transfer, store, and retrieve visual inspection data, including field observation notes, photos, and videos. Consultant will provide PWB with the framework and methodology to capture data on ovality, deflection, condition of lining, condition of pipe where exposed, and defects.
- 2) Confined Space Entry, Rope Support, and Rescue Services

- a. Consultant shall provide the staff, tools, and materials in accordance with the Confined Space Entry, Rope Support, and Rescue Plan to support PWB during the pipe inspections.

Task 4 – Analysis and Reporting

- 1) Data analysis, engineering evaluation and structural analysis – Consultant shall analyze both the visual inspection data and the pipe thickness data to establish the current condition of the pipe. Consultant shall assess current structural capacity of the sections of pipe inspected and use this data to estimate the structural capacity of the entire pipeline for each of the three Conduits from Headworks to the Mt Tabor reservoirs.
- 2) Remaining useful life evaluation – Consultant shall analyze the pipe corrosion rate and calculate the remaining useful life of the section of pipe inspected detailing the correlation between the condition and remaining serviceability of each of the three Conduits from Headworks to the Mt Tabor Reservoirs.
- 3) Rehabilitation options – Consultant shall develop and provide a comprehensive action plan that addresses the defects found in the pipe and in the adjoining areas
- 4) Technical Report – Consultant shall prepare and submit technical report in accordance with format requested or approved by the City Project Manager that shall discuss the following:
 - A) Visual inspection
 - a) Visual inspection set up and inspection procedure
 - b) Document, photo, and video quality control and quality assurance
 - c) Document, photo, and video data management
 - d) Data storage management
 - e) Summary of findings of the visual inspection
 - B) Pipe thickness measurement technologies applied on the Project
 - a) Site preparations, set up procedure, and site operation
 - b) Calibration of equipment
 - c) Field data management, data transfer protocols from the field to the data processing center
 - d) General outline of the process to convert field data into useful format
 - e) Summary of findings the pipe thickness measurement technologies
 - C) Remaining pipe thickness analysis
 - a) Analysis that estimates the remaining pipe thickness of the inspected sections and characterization of the segments that were not inspected between Headworks and Mt. Tabor
 - b) Provide base level findings, graphs, tables, maps and other tools to demonstrate the findings.
 - D) Summary of the correlation between the conduits existing condition and remaining serviceability, including rehabilitation and replacement options
 - E) Data integration to the PWB's GIS platform
 - F) File transfer to PWB

DELIVERABLES

Task 1 – Project Management

- 1) Consultant shall prepare and submit the following in a Microsoft compatible format unless noted or directed otherwise:
 - A) Meeting minutes for the Kickoff Meeting and the Monthly Progress Reports
 - B) Current work week and three-week look ahead schedule
 - C) Monthly budget updates and progress of work report.

Task 2 – Project Planning

- 1) Draft Data Management Plan
- 2) Final Data Management Plan
- 3) Draft Inspection Plan
- 4) Final Inspection Plan
- 5) Draft Confined Space Entry, Rope Support, and Safety Plan
- 6) Final Confined Space Entry, Rope Support, and Safety Plan

Task 3 – Field Inspection

- 1) Inspection report on each selected data collection method.
 - A) Visual inspection – daily inspection worksheets, digital photos, digital videos are properly labeled and catalogued.
 - B) PureEnhanced Electromagnetics (PureEM) – Consultant shall process raw data and will provide the data set in a format that can be viewed and accessed using Microsoft compatible platform.
 - C) PureMagnetic Flux Leakage (MFL™) Technology, Manned Tool - Consultant shall process raw data and will provide the data set in a format that can be viewed and accessed using Microsoft compatible platform.
 - D) SmartBall® Leak Detection – Consultant shall process raw data and will provide the data set in a format that can be viewed and accessed using Microsoft compatible platform.

- E) Phased Array Ultrasonic Inspection - Consultant shall process raw data and will provide the data set in a format that can be viewed and accessed using Microsoft compatible platform.
 - F) Ultrasonic Thickness Gauge - Consultant shall process raw data and will provide the data set in a format that can be viewed and accessed using Microsoft compatible platform.
 - G) RTD-Incotest - Consultant shall process raw data and will provide the data set in a format that can be viewed and accessed using Microsoft compatible platform.
- 2) Quality Control and Quality Assurance reporting on the data of each data collection method. This confirms that inspection data were checked and validated before being processed or used for related purposes.

Task 4 – Analysis and Reporting

- 1) Draft Technical Report – Consultant shall prepare and submit a technical report that will discuss the following:
 - A) Visual inspection
 - B) Data from various Condition Assessment Methods
 - C) Structural analysis
 - D) Estimated corrosion rates
 - E) Pipeline rehabilitation recommendations
 - F) Remaining useful life analysis
- 2) Final Technical Report – Consultant shall incorporate the comments from the review of the draft version and submit the final technical report
- 3) Formal presentation of findings from Final Technical Report
- 4) Conformed Inspection Plan and Conformed Confined Space, Rope Support and Rescue Plan

PROJECT SCHEDULE

As outlined in the Request for Proposals, QBS-RFP Solicitation Number 00000363, this Project has three phases that will run in consecutive order as follows: Phase I for Conduit No. 3, Phase II for Conduit No.2, and Phase III for Conduit No.4. PWB will issue a Notice to Proceed specifying the date the Consultant may begin work on each of the three Phases. Consultant shall not begin Phase I of this Contract until a Notice to Proceed, which must be approved by the Principal Engineer in Charge of the PWB Engineering Services Group (ESG), Planning Section, is provided by the City Project Manager. Consultant shall prepare a schedule that reflects all related tasks and subtasks and target completion dates, including the various stages of the deliverables.

NOTICE TO PROCEED

A Notice to Proceed (NTP) shall be issued by the PWB prior to beginning all Phases of the Project. The Consultant may not begin work under any phase until the issuance of Notice to Proceed (NTP) for that particular phase of the Project has been provided. The NTP requires the approval by signature of the Principal Engineer in Charge of the PWB ESG, Planning Section. Consultant shall comply with the statement of work, detailed Tasks and deliverables contained in the Contract and follow the Schedule of Values (Exhibit A through C) that are applicable to the Project Phase.

WORK ORDERS – NO COST

Work Orders may be used during each Phase of the Project as a tool to reflect the progress of a phase or particular task, manage various no-cost adjustments to tasks, refine schedules for phases, update schedules due to short time frames, to make a determination and memorialize the tools to be used during Task 3 – Field Inspection, etc.

Prior to receiving the NTP to begin Phase I, II and/or Phase III of the Project or during the term of a Project Phase, the City Project Manager may provide the Consultant with a written request for specific adjustments to a Task under the Phase. When this occurs, the Consultant shall be required to complete an updated scope, schedule and budget for the specific task(s) and submit their information directly to the City Project Manager for review. The Consultant's scope, schedule and budget shall include a detailed description of the revised tasks and services to be provided along with subtasks, deliverables, specifications, schedule, list of Consultant's personnel and subconsultants that will be completing the tasks. The Consultant shall ensure the hourly rates used are those included to this Contract and applicable to the Schedule of Values for the Phase of the Project the Work Order supports. The Schedule of Values for each Phase are incorporated into this Contract and attached as **Exhibit A, B and C**.

Once approved by the PWB, a Work Order shall be issued by the City Project Manager to the Consultant. The Work Order must be signed by the PWB approving authority that has been authorized to approve Work Orders for this Project (Principal Engineer in Charge of the PWB Engineering Services Group (ESG), Planning Section and the Consultant's approving authority prior to any work beginning on that particular task. A sample Work Order shall be made available should a no-cost Work Order be required for a Project Phase. At no time shall costs exceed the authorized Contract budget or exceed the budgets set under this Contract for Phase I through Phase III. The City Project Manager is responsible for maintaining the original, signed copy of all Work Orders and is responsible for providing a copy to the Consultant for their records.

Work Order Deliverables

Work order deliverables shall be Project specific and shall include but not be limited to the following:

1. Work plan based on the update or revised tasks identified within the Work Order.
2. Schedule and revised/updated budget information (providing no additional funds, ONLY adjustments as needed).
3. Consultant's Project lead person and staff performing work/services required. Any revisions to key personnel or subconsultants shall require a formal amendment to the Contract and requires pre-approval by the PWB and City Procurement Office.
4. Usual and/or special coordination, communication, or progress reporting conditions.
5. Schedule of work including major milestones on recommended intermediate products (reports, meetings etc.) and estimated time of completion.
6. All reports and work products shall be submitted electronically in a format appropriate to the product (e.g. documents in Word, spatial products as GIS shapefiles, etc.) along with one hard-copy as designated in the correlating Work Order.

Amendments to the Contract must follow the City Procurement procedures for an amendment to the Contract. Amendments require the signature and approval of the Chief Procurement Officer and the Consultant's authorized agent.

CONSULTANT PERSONNEL

- 1) The following is a list of key Consultant personnel that actively will participate on this Project:

Name	Role on Project
John Galleher, P.E., Principal Engineer	Consultant's Project Director responsible for the quality assurance and quality control, cathodic protection system evaluation and approval of recommendations.
Ashan McNealy, P.E., Program Manager	Consultant's Project Manager responsible for the project management, planning and coordination, review of project documents (inspection plan, review of the confined space entry, rope support and rescue plan), host workshop, drafting and editing technical memorandums.
Travis Wagner, P.E., Principal Engineer	Responsible for the data analytics and recommendations.
Craig Daly, P.E. Senior Engineer	Responsible for calculating the remaining useful life of the subject pipelines.
Travis Wagner, P.E, Principal Engineer	Responsible for hydraulic analysis.
Ali Alavinasab, P.E., PhD., Senior Engineer	Responsible for the structural analysis evaluations.
John Matthews, P.E., PhD., Senior Engineer	Responsible for guidance on the selection and use of pipeline rehabilitation.
Allison Stroebele, Metallic Pipe Practice Leader	Responsible for guiding the tool selection and the assessment strategy; Lead for the non-destructive spot testing (INCOTEST) for the Project. Pure may perform spot testing, as required.
Tavon Ellis, Data Management	Responsible for the management of the inspection data, and incorporation of processed data into PWB's data management systems.
Robert Hayward, GIS Manager	Responsible for reviewing project approach, scope and preliminary planning to begin planning for pipeline mapping activities.

SUBCONSULTANTS

The following are subconsultants for the Consultant that shall actively participate on this Project and perform the following services:

- 1) **Mistras Group, Inc. (Ropeworks)** shall provide the rope support system for the project.

Subconsultant's Key Member's Name	Role on Project	Subconsultant Amount
Kyle Scharfe, Rope Access Supervisor	Responsible for rope support system.	\$375,000
Matthew Sirota, Rope Access Supervisor	Responsible for rope support system.	
Reuben Shelton, Rope Access Supervisor, Rope Access Trainer	Responsible for rope support system.	

- 2) **Applus RTD (JanX)** shall provide INCO pulsed eddy current and phased array testing.

Subconsultant's Key Member's Name	Role on Project	Subconsultant Amount
Ken Lobo, Senior INCO Level 2	Responsible for pulsed eddy current testing.	\$285,000
Michael Speegle, INCO Level 2	Responsible for pulsed eddy current testing.	
William Jermeay, NDE Level 1	Responsible for pulsed eddy current testing.	

- 3) **All Hazards Rescue** shall lead the development of the Confined Space, Rope Support, and Rescue Plan and provide on-site safety services during the pipe inspections.

Subconsultant's Key Member's Name	Role on Project	Subconsultant Amount
Rob Davis	Responsible for Final Confined Space, Rope Support, and Rescue Plan and on-site safety support services.	\$315,000

- 4) **J.F. Shea Co., Inc.** shall provide for the winching and calcium removal services to facilitate the use of the MFL tool

Subconsultant's Key Member's Name	Role on Project	Subconsultant Amount
Brendan Slagle	Provide winching and calcium removal services for the MFL tool	\$110,000

- 5) **Chick of All Trades LLC (DBE, MBE, WBE) OR Cert ID 4546** shall provide traffic control and flagging services during inspections in traffic areas.

Subconsultant's Key Member's Name	Role on Project	Subconsultant Amount
Valerie Solorzano	Responsible for flagging, placement removal of traffic control devices; design for traffic control plans; installation of signs for highway, street, and bridge construction	\$45,000

- 6) **Cascade GIS & Consulting LLC (DBE, ESB, MBE, WBE) OR Cert ID 8774** shall provide GIS consultative services

Subconsultant's Key Member's Name	Role on Project	Subconsultant Amount
Erica McCormick GISP, RPA	Responsible for providing GIS and mapping services during the planning, analysis and reporting tasks	\$24,298

- 7) **Words By Malliris (DBE, ESB, WBE) OR Cert ID 3585** shall provide technical editing services

Subconsultant's Key Member's Name	Role on Project	Subconsultant Amount
Liz Malliris	Responsible for technical editing during the planning, analysis and reporting tasks	\$13,720

- 8) **Ferguson Land Surveying, Inc. (ESB) OR Cert ID 7366** with description of role addressed below.

Subconsultant's Key Member's Name	Role on Project	Subconsultant Amount
Joe H Ferguson, PLS	Responsible for establishing control points along the conduits alignments and setting construction stakes at access manhole locations.	\$40,000

- 9) **Mt Hood Piping and Welding Incorporated (DBE, ESB, MBE) OR Cert ID 2776** with description of role addressed below.

Subconsultant's Key Member's Name	Role on Project	Subconsultant Amount
Jonathan Graves	Responsible for facilitating destructive testing in accordance with the inspection plan, and completing subsequent patch repairs	\$16,500

The City will enforce all social equity contracting and Minority, Women and Emerging Small Business (M/W/ESB) subcontracting commitments submitted by the Consultant in its Proposal. For contracts valued \$50,000 or more, the Consultant shall submit a Monthly Subconsultant Payment and Utilization Report (MUR), made part of this contract by reference, reporting ALL subconsultants employed in the performance of this agreement. A copy of the Subconsultant Change Request Form can be found on Procurement Services' website under Contractor Resources.

COMPENSATION

The maximum amount that Consultant can be paid on this Contract is **\$3,610,710**, (hereafter the "not to exceed" amount), as described in the Schedule of Values, attached to this Contract as Exhibit A through C. Table 1 below provides a brief overview of costs by Project Phase and Task.

TASKS					
Phase	Cost	1	2	3	4
I - Conduit 3	\$ 934,310	\$ 43,990	\$ 63,970	\$ 770,500	\$ 55,850
II - Conduit 2	\$ 1,282,140	\$ 38,038	\$ 23,735	\$ 1,165,500	\$ 54,866
III - Conduit 4	\$ 1,394,261	\$ 38,588	\$ 24,210	\$ 1,275,500	\$ 55,963
Total:	\$ 3,610,710				

Table 1

The "not to exceed" amount includes all payments to be made pursuant to this Contract, including reimbursable expenses, if any. Nothing in this Contract requires the City to pay for work that does not meet the Standard of Care or other requirements of the Contract. The actual amount to be paid Consultant may be less than that amount.

The Consultant is entitled to receive progress payments for its work pursuant to the Contract as provided in more detail below. The City shall pay Consultant based on these invoices for acceptable work performed and approved until the "not to exceed" amount is reached. Thereafter, Consultant must complete work based on the Contract without additional compensation unless there is a change to the scope of work.

Any estimate of the hours necessary to perform the work is not binding on the City. The Consultant remains responsible if the estimate proves to be incorrect. Exceeding the number of estimated hours of work does not impose any liability on the City for additional payment.

If work is completed before the "not to exceed" amount is reached, the Consultant's compensation shall be based on the Consultant's bills previously submitted for acceptable work performed and approved.

Consultant shall evaluate and certify subconsultants invoices for payment, including review and determination of whether each charge is accurate and constitutes payment for fully authorized and completed Work, and maintain complete records regarding performance of this Service.

All work product produced by the Contractor and delivered to the City under this Contract is the exclusive property of the City.

PAYMENT TERMS: Net 30 Days

Hourly Rates

The PWB has authorized an annual 2% rate increase. The first annual rate increase is estimated to be February/March 2018. The hourly billing rates shall not exceed those set forth below.

Role on Project	Consultants and Subcontractors	Hourly Rate 2017	Hourly Rate 2018	Hourly Rate 2019
Principal Engineer	Consultant	\$ 250.00	\$ 255.00	\$ 260.10
Project Manager	Consultant	\$ 180.00	\$ 183.60	\$ 187.27
Project Engineer	Consultant	\$ 125.00	\$ 127.50	\$ 130.05
Senior Engineer	Consultant	\$ 180.00	\$ 183.60	\$ 187.27
Data Analyst	Consultant	\$ 125.00	\$ 127.50	\$ 130.05
Technician	Consultant	\$ 90.00	\$ 91.80	\$ 93.64
Administrative	Consultant	\$ 90.00	\$ 91.80	\$ 93.64
Specialized GIS Analyst	Consultant	\$ 125.00	\$ 127.50	\$ 130.05
Principal GIS Analyst	Cascade GIS & Consulting LLC	\$ 135.00	\$ 137.70	\$ 140.45
Senior Cartographer	Cascade GIS & Consulting LLC	\$ 130.00	\$ 132.60	\$ 135.25
Technical Editor	Words By Malliris	\$ 95.00	\$ 96.90	\$ 98.84

Standard Reimbursable Costs

The following costs shall be reimbursed without mark-up:

- Travel, including mileage, beyond a 100-mile radius of Portland when specifically required by the Contract;
- Document reproduction directly attributable to the Contract; and,
- Approved Reimbursable Direct Costs.

Travel Expenses

It is the policy of the City that all travel shall be allowed only when the travel is essential to the normal discharge of Consultant's responsibilities under the Contract. All travel shall be conducted in the most efficient and cost-effective manner resulting in the best value to the City. Consultant's Project Manager shall provide a written advance request for any upcoming trips for approval by City Project Manager

The travel must comply with all the requirements set forth in this section and must be for official City business only. Personal expenses shall not be authorized at any time. All expenses are included in the total maximum Contract amount. In addition to meals and lodging, travel expenses shall be reimbursed for airfare and rental vehicles only if Consultant is acting within the course and scope of his/her duties under this Contract. Receipts are required for all out-of-state travel expenses. All Consultant

representatives shall fly "coach class," unless Consultant personally pays the difference. All Consultant representatives shall be limited to economy or compact size rental vehicles, unless Consultant personally pays the difference.

For any exceptions to the expense items listed above, Consultant must obtain the separate written approval of City's Project Manager in writing prior to incurring any expense for which reimbursement shall be sought. The City shall not pay any mark up over actual allowable reimbursement costs.

Mobilization and Inspection

The Mobilization for every Field Inspection Method referenced in Task 3.0 Field Inspections includes the one-time deployment of every inspection method for each Phase of the Project. Mobilization includes but not limited to roundtrip shipping and handling, on-going-maintenance, repairs, and safekeeping of the equipment and accessories while at the job sites. Mobilization also includes inspection personnel travel, rental cars and equipment, board and lodging, meals and all incidentals.

The unit price for every inspection method listed in 3.0 Field Inspections, includes but not limited to, personnel conducting the inspection, equipment setup and tear-down, maintenance and repairs, operation and data collection, and data processing and analysis. PWB and the Consultant will determine the sections of pipe to be inspected by specific method of inspection.

Subconsultant Costs

Compensation for subconsultants shall be limited to the same restrictions imposed on the Consultant. The maximum markup on subconsultant services shall not exceed 5%.

The following subconsultants shall bill the Consultant at a mobilization and daily rate: Ferguson Land Surveying, Inc.; Chick of All Trades LLC; All Hazards Rescue; Applus RTD (JanX); Mistras Group, Inc. (Ropeworks); J.F. Shea Co., Inc.; and Mt Hood Piping and Welding Incorporated.

The following subconsultants shall bill at an hourly rate: Cascade GIS & Consulting LLC and Words By Malliris.

Progress Payments

Compensation to the successful Proposer shall be based on invoices, monthly MUR reports and detailed monthly Project progress reports submitted to the PWB, which shall document completion of Project task/subtask or work order and provide detailed documentation of Project activity by the successful Proposer (including subconsultants). The successful Proposer is required to follow Generally Accepted Accounting Principles (GAAP). Personal expenditures or expenditures not related to the Project or part of the Contract are not eligible for reimbursement.

On or before the 15th of each month, the Consultant shall submit to the Water Bureau's Accounts Payable Department an Invoice for work performed by the Consultant during the preceding month. The Invoice shall contain the following:

The Consultant shall enter all pertinent information below on their invoice in order for the City to review and authorize processing of invoices for payment.

- A. The correct name of the City's Project Manager (Vill G. Villanueva)
- B. Invoice date
- C. Date range during which the Services being invoiced for were provided
- D. Invoice number that ends in a "###", which represents the correct invoice sequence of issue. The last invoice submitted on the Project must be clearly labeled "Final Invoice"
- E. The correct Contract number
- F. Original Contract total, not to exceed amount broken out by: Phase(s), Task, Subtask, and Work Order (if applicable)
- G. Statement of changes to the original total, not to exceed amount by amendment(s) and broken out in the same way as in item F of this section, showing the revised Contract amounts
- H. Paid to date amounts showing the amounts submitted for prior to the current invoice (regardless of payment status) and broken out the same way as in item F of this section
- I. Amounts being invoiced for in the current invoice and broken out the same way as in item F of this section, with a roll up of a "Total Amount Billed for This Invoice" line item amount
- J. Balances Remaining after receipt of payment for the current invoice broken out the same way as in item F of this section
- K. Consultant shall describe all Services performed with particularity and by whom it was performed (Consultants individual or subconsultant, labor category, direct labor rate, hours worked during the period) and shall itemize and explain all expenses for which reimbursement is claimed. Reimbursable Expenses shall be broken out into to line item categories, 1) Travel Expenses and 2) General Reimbursable Expenses. Invoices for Basic Services under a specific Phase and Task shall be for completed Basic Services only and shall indicate the percentage of the total Basic Services for that Phase and Task that the amount invoiced represents.
- L. The Consultant shall also attach photocopies of claimed reimbursable expenses, if applicable
- M. The Consultant shall stamp and approve all subconsultant invoices and note on the subconsultant invoice what they are approving as "billable" under the contract

- N. The billing from the prime should clearly roll up labor and reimbursable costs for the prime and subconsultants – matching the subconsultant invoices

Prior to initial billing, the Consultant shall develop a billing format for approval by the City. Submission of the draft billing document shall be emailed to the PWB Contract Administration Branch at: Corrina.Rodriguez@portlandoregon.gov and to the City's Project Manager at Vill.Villanueva@portlandoregon.gov for final review and approval.

The Invoice, monthly MUR reports and detailed monthly Project progress report shall be e-mailed to: wbaps@portlandoregon.gov

A copy of the monthly MUR report shall also be emailed to the City Procurement Compliance Specialist at: Brenda.Scott@portlandoregon.gov

The City shall make payments to which no dispute exists within 30 days of receipt of the invoice and only after receipt and approval of Consultant's detailed monthly invoice, and all reports, designs, certificates, and documents covered by the invoice have been submitted. Payment of any bill, however, does not preclude the City from later determining that an error in payment was made and from withholding the disputed sum from the next progress payment until the dispute is resolved.

Consultant agrees that the City has no direct or indirect contractual obligation or other legal duty whatsoever to pay the Sub-consultants and other subcontractors of Consultant or otherwise ensure that Consultant makes full and timely payment to those Sub-consultants and subcontractors for services performed on the Project. The Consultant shall make full payment to its subconsultants within 10 business days following receipt of any payment made by the City to Consultant.

Automated Clearing House Payments

It is the City's policy to pay its Consultant invoices via electronic funds transfers through the automated clearing house (ACH) network. To initiate payment of invoices, Consultants shall execute the City's standard ACH Vendor Payment Authorization Agreement.

Upon verification of the data provided, the Payment Authorization Agreement shall authorize the City to deposit payment for services rendered directly into Consultant accounts with financial institutions. All payments shall be in United States currency.

WORKERS' COMPENSATION INSURANCE STATEMENT**IF YOUR FIRM HAS CURRENT WORKERS' COMPENSATION INSURANCE, CONSULTANT MUST SIGN HERE:**

I, undersigned, am authorized to act on behalf of entity designated below, and I hereby certify that this entity has current Workers' Compensation Insurance.

Consultant Signature:  Date: 11/29/2016 Entity: Pure Technologies U.S. Inc.

IF YOUR FIRM DOES NOT HAVE CURRENT WORKERS' COMPENSATION INSURANCE, CONSULTANT MUST COMPLETE THE FOLLOWING INDEPENDENT CONSULTANT CERTIFICATION STATEMENT:

As an independent Consultant, I certify that I meet the following standards:

1. The individual or business entity providing labor or services is registered under ORS Chapter 701, if the individual or business entity provides labor or services for which such registration is required;
2. Federal and state income tax returns in the name of the business or a business Schedule C or form Schedule F as part of the personal income tax return were filed for the previous year if the individual or business entity performed labor or services as an independent Consultant in the previous year; and
3. The individual or business entity represents to the public that the labor or services are to be provided by an independently established business. Except when an individual or business entity files a Schedule F as part of the personal income tax returns and the individual or business entity performs farm labor or services that are reportable on Schedule C, an individual or business entity is considered to be engaged in an independently established business when four or more of the following circumstances exist. Consultant: check four or more of the following:
 - ☐ A. The labor or services are primarily carried out at a location that is separate from the residence of an individual who performs the labor or services, or are primarily carried out in a specific portion of the residence, which portion is set aside as the location of the business;
 - ☐ B. Commercial advertising or business cards as is customary in operating similar businesses are purchased for the business, or the individual or business entity has a trade association membership;
 - ☐ C. Telephone listing and service are used for the business that is separate from the personal residence listing and service used by an individual who performs the labor or services;
 - ☐ D. Labor or services are performed only pursuant to written contracts;
 - ☐ E. Labor or services are performed for two or more different persons within a period of one year; or
 - ☐ F. The individual or business entity assumes financial responsibility for defective workmanship or for service not provided as evidenced by the ownership of performance bonds, warranties, errors and omission insurance or liability insurance relating to the labor or services to be provided.

Consultant Signature

Date

FOR CITY USE ONLY

PROJECT MANAGER-COMplete ONLY IF CONSULTANT DOES NOT HAVE WORKER'S COMPENSATION INSURANCE
ORS 670.600 Independent Consultant standards. As used in various provisions of ORS Chapters 316, 656, 657, and 701, an individual or business entity that performs labor or services for remuneration shall be considered to perform the labor or services as an "independent consultant" if the standards of this section are met. The contracted work meets the following standards:

1. The individual or business entity providing the labor or services is free from direction and control over the means and manner of providing the labor or services, subject only to the right of the person for whom the labor or services are provided to specify the desired results;
2. The individual or business entity providing labor or services is responsible for obtaining all assumed business registrations or professional occupation licenses required by state law or local government ordinances for the individual or business entity to conduct the business;
3. The individual or business entity providing labor or services furnishes the tools or equipment necessary for performance of the contracted labor or services;
4. The individual or business entity providing labor or services has the authority to hire and fire employees to perform the labor or services;
5. Payment for the labor or services is made upon completion of the performance of specific portions of the project or is made on the basis of an annual or periodic retainer.

City Project Manager Signature

Date

CONSULTANT SIGNATURE:

This contract may be signed in two (2) or more counterparts, each of which shall be deemed an original, and which, when taken together, shall constitute one and the same Agreement.

The parties agree the City and Consultant may conduct this transaction, including any contract amendments, by electronic means, including the use of electronic signatures.

I, the undersigned, agree to perform work outlined in this contract in accordance to the STANDARD CONTRACT PROVISIONS, the terms and conditions, made part of this contract by reference, and the STATEMENT OF THE WORK made part of this contract by reference; hereby certify under penalty of perjury that I/my business am not/is not in violation of any Oregon tax laws; hereby certify that my business is certified as an Equal Employment Opportunity Affirmative Action Employer and is in compliance with the Equal Benefits Program as prescribed by Chapter 3.100 of Code of the City of Portland; and hereby certify I am an independent consultant as defined in ORS 670.600.

Pure Technologies U.S. Inc.

BY: 

Date: 11/29/2016

Name: **Mark Holley**

Title: **Vice President**

CONTRACT NUMBER: 30005613

CONTRACT TITLE: CONDUIT INTERNAL INSPECTION, CONDITION ASSESSMENT AND RESCUE SERVICES

CITY OF PORTLAND SIGNATURES:

By: N/A
Bureau Director

Date: _____

By: _____
Chief Procurement Officer

Date: _____

By: N/A
Elected Official

Date: _____

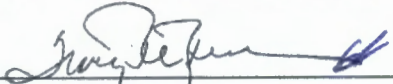
Approved:

By: N/A
Office of City Auditor

Date: _____

APPROVED AS TO FORM

Approved as to Form:

By: 
Office of City Attorney

CITY ATTORNEY

Date: 12/1/16

Exhibit A - Schedule of Values

Task Name		Principal	Project Manager	Project Engineer	Senior Engineer	Data Analyst	Technician	Admin	GIS	Words by 6044/2000 Technical Writer	Cascade GIS & Consulting (Principal GIS Analyst)	Cascade GIS & Consulting (Senior Cartographer)	
Phase I - Conduit No. 3													
Subtotal		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
1.0 Project Management													
a) Kickoff Meeting	Hours	8	8							4			\$4,000
b) Project Management PM	Hours		14	14									\$14,000
c) Progress Review Meeting	Hours			24				24					\$24,000
d) Workshops	Hours		8						50	\$180	\$0	\$0	\$180
e) Project Administration	Hours					50			\$2,180				\$2,180
Project Management Totals (Based on hrs)		\$2,000	\$24,130	\$4,750	\$0	\$0	\$0	\$2,180	\$0	\$180	\$0	\$0	\$26,040
Mileage (Cascade GIS)	mile	3000	\$6.54										\$19,620
Flights	Trip	16	\$80										\$1,280
Car Rental	Day	16	\$170										\$2,720
Accommodations	Day	16	\$50										\$800
2.0 Project Planning													
a) Data Management Plan	Hours	18	44	54	18	20			30	20	10	10	\$18,000
b) Inspection Planning	Hours	5	30	40	10		14		18	20			\$18,000
c) Confirmed Space Safety Plan	Hours	2	14	38				50	\$5,750	\$4,180	\$1,130	\$1,130	\$18,000
Inspection Planning Totals		\$5,750	\$11,840	\$18,500	\$6,840	\$2,500	\$1,180	\$0	\$5,750	\$4,180	\$1,130	\$1,130	\$77,000
3.0 Field Inspection													
a) Pipe Inspection													
Method: VIT													\$18,000
4.0 Analysis & Reporting													
a) Engineering Evaluation	Hours	18	4	36	30					8			\$18,000
b) Remaining Useful Life	Hours	8	4	36	30				48		24	24	\$18,000
c) Technical Report	Hours	8	15	32	28	8				\$1,000	\$1,440	\$1,200	\$18,000
Analysis and Reporting Totals		\$8,000	\$4,020	\$10,600	\$16,800	\$1,800	\$0	\$0	\$8,000	\$1,000	\$1,440	\$1,200	\$79,000
Field Inspection Methods													
(Based on 10' Trail 2' offset)													
a) Pipe * Enhanced EIT Ins	EA	1	\$75,000										\$75,000
b) Pipe * Enhanced EIT Ins	Mile	4	\$75,000										\$300,000
c) Pipe * Enhanced EIT Ins	EA	0	\$75,000										\$0
d) Pipe * Enhanced EIT Ins	Mile	0	\$75,000										\$0
e) Pipe * MPL, Mobilization	EA	0	\$100,000										\$0
f) Pipe * MPL, Inspection PM	Mile	0	\$100,000										\$0
g) Pipe * MPL, Mobilization	EA	0	\$100,000										\$0
h) Pipe * MPL, Inspection PM	Mile	0	\$100,000										\$0
i) Pipe * MPL, Mobilization	EA	0	\$100,000										\$0
j) Pipe * MPL, Inspection PM	Mile	0	\$100,000										\$0
k) Pipe * MPL, Mobilization	EA	1	\$100,000										\$100,000
l) Pipe * MPL, Inspection PM	Day	10	\$7,500										\$75,000
m) Pipe * MPL, Inspection PM	EA	0	\$100,000										\$0
n) Pipe * MPL, Inspection PM	Day	0	\$7,500										\$0
o) Pipe * MPL, Inspection PM	Day	10	\$7,500										\$75,000
p) Pipe * MPL, Inspection PM	Day	25	\$4,300										\$107,500
q) Pipe * MPL, Inspection PM	Day	25	\$9,000										\$225,000
r) Pipe * MPL, Inspection PM	Day	10	\$1,300										\$13,000
s) Pipe * MPL, Inspection PM	Day	1	\$500										\$5,000
t) Pipe * MPL, Inspection PM	Location	5	\$1,000										\$5,000
u) Surveying	Day	0	\$5,000										\$0
Grand Total Phase I - Conduit No. 3													\$26,040

Note: Travel (flights & car rental), accommodations and meals will be for Consultant personnel attending face-to-face meeting or field work.

M: Mobilization is a one-time charge for each Phase. Setup for multiple locations is incidental to the inspection work.

EA: Fee covers maximum three inspections per mile.

AAA: Fee covers maximum one inspection per mile.

Notes: *** - Travel (flight & car rental), accommodations and meals will be for Consultant personnel attending face-to-face meeting or field work.
 *** - Mobilization is a one-time charge for each Phase. Setup for multiple locations is incidental to the inspection work.
 *** - Fee covers maximum three insertions per mile
 *** - Fee covers maximum one insertion per mile